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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/491,969	01/27/2000	Ronald Spangler	ACX-128	9298

7590 10/06/2003

John Ross
Cymer, Inc.
16750 Via Del Campo Court
Legal Dept. MS/1-2A
San Diego, CA 92127-1712

EXAMINER

TRINH, MINH N

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 10/06/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/491,969

Applicant(s)

SPANGLER ET AL.

Examiner

Minh Trinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 10,24,27-29,33-35,38 and 39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9,11-23,25,26,30,32,36 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,7,11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, Species IA in Paper No. 15 is acknowledged and noted, asserting that there is no serious burden on the examiner to examine all claims. The traverse has been carefully considered, but is not persuasive because the reasons proffered do not appear germane to the propriety of a requirement for election of species. The sections of the manual cited relate to restriction requirement for election of species, which is clearly covered in section 808.01(a). Once the claims are determined to be directed to mutually patentable inventions and the Office requires an election of species, a persuasive traverse is an admission on the record that applicant does not find the claimed species are patentable, one over the other. Having not done so, the reasons presented are not persuasive. Applicant is not entitled to examination of multiple independent inventions in one application. Moreover, examination of the independent inventions herein would clearly present a burden because the searches will not be coextensive. Accordingly, the requirement is repeated and **made final**. Species I B-1D will be combined if applicant will stipulate that they are obvious over each other.

2. Claims 10, 24, 27-29, 33-35, 38 and 39 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election)

requirement in Paper No. 15. An Office Action on the merits of elected species IA, claims 1-9, 11-23, 25, 26, 30-32, 36 and 37 follows.

Specification

3. The specification should be revised to include the patent number of the related application which has already matured into a patent. For example: a) application S/N 09/261475 after "filed 2/26/1999" (in the specification, page 1, about line 3) should be added: "--, now US Patent No. 6,404,167, issued July 31, 2001--"; b) application S/N 08/943,645 after "filed 10/3/1997" (in the specification, page 1, about line 4) should be added: "--, now US Patent No. 6,069,433, issued May 30, 2000--", c) application S/N 08/188,145 after "filed 1/27/1994" (in the specification, page 1, about line 5) should be added: "--, now US Patent No. 6,420,819, issued July 16, 2002--".

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9 and 11-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following are examples:

"said sensor signal" (claim 1, line 9) is not clear as to whether this limitation is referred to "a signal as recited previously in line 5.

The scope of claims 11-23 is not clear because the claims is directed to a vibration control system and the limitations of these claims is directed to a fabrication systems, such as the phrase: "controls fabrication system" (claims 11 and 12, lines 2-3); and claim 13 the limitation:" said fabrication system is selected from the group consisting of, " these limitations do not further limit the claimed structure as recited in the preamble of claim 1. Also, the preamble of claims 36-37 appears to be inconsistent with one recited in claims 1 and 25, therefore the scope of claims 36-37 is also not clear.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1, 2 4-9, 25-26, 30-32 and 36-37, as best understood are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant Admitted Prior Art (APA), [see conventional Fig. 1A, and the discussed in page 11, lines 1-26).

As applied to each of claim 1, 25, 26, 36 and 37, APA teaches the claimed vibration control system of the present application: including the following features: an actuator assembly 10; a sensor 12; a circuit in electrical communication with said actuator assembly and said sensor 12; wherein the control 30 detects of said at least one parameter of displacement by said sensor, said sensor signals said circuit, which,

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in response, activated said actuator assembly to control vibration (see Fig. 1A and the related discussion in page 11, lines 1-26).

Limitations of claims 25, 26, 36 and 37 are also met as the above discussion.

As applied to claim 2, the APA teaches the actuator is strainer gage 35 (see Prior art 's figure 1A).

As applied to claims 4-9, noting APA's figure 1 shows all the features associated with each of claims 4-9, i.e., an insulator 18; conductor 32a, b and active element (PZT) 12, etc.

As applied to claim 20, APA's figure 1 shows the control 30 is being detachable from the actuator assembly 10.

8. Claims 1, 25-26, 30-32 and 36-37, as understood are also rejected under 35 U.S.C. 102(a) as being anticipated by JP 5-248489 to Takahashi et al.

Takahashi et al teach a vibration control system for use with a fabricating system comprising an actuator assembly (see Fig. 1); a sensor 5; a circuit in electrical communication with said actuator assembly and said sensor 5; wherein upon the detection of said at least one parameter of displacement by said sensor, said sensor signals said circuit, which, in response, activated said actuator assembly to control vibration (see the discussion in the abstract). It is noted that there is no structure difference between the prior art and the present application as compared (see Fig. 1) therefore the structure of the prior art is capable for use with a fabricating system as claimed by the present application.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3, 10, 11-23, as understood are rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Pla et al (US 5,458,222).

APA does not teach the use regarding the at least two actuators. Pla et al disclose this concept (see Fig. 1, shows at least two actuators plates being used 22). Therefore, it would have been obvious to one ordinary skill in the art at the invention was made to utilize the teaching of at least two actuators of Pla et al on to the invention of APA as so to obtain a desired vibration control system. Furthermore, it would have been an obvious matter of design choice to choose any desired number of actuator on a actuator assembly depend upon the application requirement purpose since applicants have not disclosed that these features are critical, patentably distinguishing features and it appears that the invention would perform equally well with the at least one actuator as shown in the prior art reference (see APA's Fig. 1A). Furthermore, It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an additional actuator onto the actuator assembly of the APA in order to form a desired structure, since it has been held that mere duplication of the essential

working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

As applied to claims 11-12, APA inherently discloses that the actuator assembly that controls the fabrication system in order to increasing the accuracy during it operation.

As applied to claims 13-18, it is conventional and well known in the art as to provide the vibration control system by attaching or securing it to an associated intended structure including the fabrication system recited in each of claims 14-16, and lens assembly and wafer stage as recited in claim 17 and that as recited in claim 18 for monitoring and controlling of the vibration generate during the operation process as so to facilitate the fabrication process.

As applied to claims 19-23, it is conventional and well known in the art that the fabrication system consisting of a step motor, a DC motor, hydraulic actuator and etc. One having ordinary skill in the art would know to employ the use of the actuator assembly onto the above listed system for various known the benefits including controlling the vibration as so to increase the live of the work piece. It is also noted that there is no structure difference between the prior art as compared to the present application, therefore the prior art structure, i.e, APA's figure 1 is capable for use with a fabricating system including those recited limitations above.

Conclusion

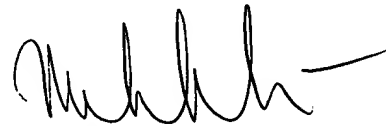
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11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art teaching of apparatus and method for vibration control.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (703) 305-2887. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

A handwritten signature in black ink, appearing to read 'Minh Trinh', with a long horizontal stroke extending to the right.

Examiner Group 3729

Mt
9/24/2003